

Number	Section	Purpose	Page	Current Text	New Text
1	Executive Summary	Clarify principles from the 2012 Business Plan	9	<p>It laid out a roadmap for how the Authority plans to build the 520-mile (Phase 1) system connecting the San Francisco Bay Area to the Los Angeles Basin through a series of phases—starting with construction of the system’s backbone in the Central Valley. The 2012 Business Plan created the foundation for a statewide rail modernization program with high-speed rail at its core, and with parallel investments in urban, commuter and intercity rail systems that together will significantly improve mobility and connectivity throughout the state.</p>	<p>The plan called for the system to be delivered "Better. Faster. Cheaper." To further that goal, it laid out a roadmap for how the Authority plans to build the 520-mile (Phase 1) system connecting the San Francisco Bay Area to the Los Angeles Basin through a series of phases—starting with construction of the system’s backbone in the Central Valley. The 2012 Business Plan created the foundation for a statewide rail modernization program with high-speed rail at its core, and with parallel investments in urban, commuter and intercity rail systems that together will significantly improve mobility and connectivity throughout the state. It established a key principle, to which the Authority remains committed, to evaluate new opportunities and adapt to changing circumstances so that we can deliver to California a cost-effective, high quality system as quickly and efficiently as possible.</p>
2	Executive Summary	Clarify the differences between a Usable Segment and the Initial Operating Segment	10	None	<p>Callout Box: What is an IOS?</p> <p>The Safe, Reliable High-Speed Passenger Train Bond Act (Bond Act) for the 21st Century establishes that Phase 1 of the high-speed rail system is the corridor between San Francisco’s Transbay Terminal and Los Angeles Union Station and Anaheim. The Bond Act also defines a "Usable Segment" as a portion of that corridor that includes at least two stations.</p> <p>As part of its development of the 2012 Business Plan, the Authority laid out a plan to implement the system in a series of phases, starting with an Initial Operating Segment (IOS). The term Initial Operating Segment is not defined in statute, and its identification is not a requirement of the Bond Act. It was adopted as part of the Authority’s implementation strategy, and identifies the segment over which the Authority plans to initiate revenue high speed rail service, based on best available data and forecasts and other factors. The determination of an IOS incorporates elements that are in statute, such as the requirement that it be a usable segment, and that operations not require a subsidy, and also factors in ridership, fare box revenue and operations and maintenance forecasts and value of private sector participation to help determine the best business case for initiating operations.</p> <p>In November 2011, the Board of Directors evaluated potential usable segments on the Phase 1 Corridor against a range of criteria, including an unsubsidized high speed rail service, and selected two Initial Operating Segments for high-speed rail service, both of which are comprised of multiple stations:</p> <ul style="list-style-type: none"> • IOS-North is the portion of the Phase 1 corridor from a San Jose station to a Bakersfield station; and • IOS-South is the portion of the Phase 1 corridor between a Merced station and a San Fernando Valley station. <p>Both the IOS-North and IOS-South include the 130-mile first construction section in the Central Valley.</p> <p>Subsequently, in adopting the 2012 Business Plan, the Authority selected the IOS-South to advance as the Initial Operating Section as part of its phased implementation strategy. This decision was based on a number of factors, including the high priority given to closing the rail gap between Northern and Southern California and providing an early connection into the Los Angeles Basin through a high-speed rail/Metrolink connection at Palmdale. Consistent with the principles established in the 2012 Business Plan, to advance the program in a flexible manner -- and to deliver a high quality project as early as possible at the lowest possible cost and leveraging private sector participation-- the Authority will continue to evaluate what is the optimum IOS.</p> <p>In June 2012 the Office of Legislative Counsel (a nonpartisan public agency that provides legal services to the Legislature and others) determined that the initial 130-mile section of the high-speed rail line in the Central Valley qualifies as a ‘useable segment’ under the Bond Act. In July 2012, the California Legislature approved- and the Governor signed into law- Senate Bill (SB) 1029 (Budget Act of 2012) which appropriated almost \$8 billion in federal and state funds to construct the first high-speed rail segments in the Central valley and fund bookend and connectivity projects throughout California.</p>
3	Executive Summary	Clarify the inclusion of the full Phase 2 system as part of the Authority's long-term plans	15	<p>The 2012 Business Plan also laid the foundation for a statewide rail modernization program with high-speed rail at its core, and parallel investments in urban, commuter and intercity rail systems, that together will significantly improve mobility and connectivity throughout the state. This implementation strategy is designed to not only yield immediate benefits but to also meet California’s 21st century transportation needs.</p>	<p>The 2012 Business Plan also laid the foundation for a statewide rail modernization program with high-speed rail at its core, and parallel investments in urban, commuter and intercity rail systems, that together will significantly improve mobility and connectivity throughout the state. This implementation strategy is designed to not only yield immediate benefits but to also meet California’s 21st century transportation needs. Ultimately, the strategy envisions implementing the Phase 1 and Phase 2 systems so that economic centers in the Bay Area and Northern California—including San Francisco, San Jose, and Sacramento—have fast and direct rail connections to Southern California cities—including Los Angeles, Anaheim and San Diego—through the rapidly-growing communities in the Central Valley, such as Merced, Fresno and Bakersfield.</p>

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4	Connecting California	Clarify the analysis of potential options for a direct one-seat ride to the Transbay Transit Center	16 Exhibit 1.1	None	<p>Footnote from the Bay to Basin phase label:</p> <p>The Bay to Basin phase of the system is envisioned to create a connection between the high-speed rail system and the Caltrain corridor that would allow for a seamless one seat-ride to the Transbay Transit Center in downtown San Francisco. The Authority is currently working with its partners on how to develop and design this connection with a number of decisions still to be made. Because of that, in order to be conservative in preparing the ridership and revenue forecasts, a transfer to Caltrain has been assumed instead. The planned one-seat ride connection between the two systems will generate higher ridership and revenue than is shown in the current forecasts.</p>
5	Connecting California	Describe the Southern California and Northern California MOUs and Connectivity and Bookend projects	21	FORGED PARTNERSHIPS TO INVEST ALMOST \$2 BILLION IN PROPOSITION 1A FUNDS FOR BOOKEND AND CONNECTIVITY PROJECTS SB 1029 also appropriated \$2 billion—that will leverage approximately \$5 billion in additional funding—for bookend and connectivity projects. The Authority is collaborating with our state and regional partners to begin implementing these critically important projects that will provide early benefits before they are eventually integrated with high-speed rail.	<p>FORGED PARTNERSHIPS TO INVEST ALMOST \$2 BILLION IN PROPOSITION 1A FUNDS FOR BOOKEND AND CONNECTIVITY PROJECTS SB 1029 also appropriated \$2 billion—that will leverage approximately \$5 billion in additional funding—for bookend and connectivity projects. The Authority is collaborating with our state and regional partners to begin implementing these critically important projects that will provide early benefits before they are eventually integrated with high-speed rail. At its April 2012 Board meeting, along with adopting the 2012 Business Plan, the Authority Board also approved Memoranda of Understanding (MOUs) with local transit partners in Southern California and Northern California. The goal of the MOUs was to advance statewide rail modernization by starting to invest in local rail systems on the “bookends” that would eventually be part of or connect to the statewide high-speed rail system. Since then, the Authority has continued to work hard to help advance the projects laid out in the MOUs. The status of several of these projects is described on Page 24 of the Business Plan while all of the projects are described in the Authority’s High-Speed Rail Connectivity and Bookends Fact Sheet available at http://www.hsr.ca.gov/docs/newsroom/fact%20sheets/High-Speed%20Rail%20Connectivity%20and%20Bookends.pdf.</p>
6	Connecting California	Clarify the Authority's Community Benefits Policy	23	Additionally, the Authority Board of Directors has approved a Community Benefits Policy that will ensure that 30 percent of the hours will be performed by National Targeted Workers and that 10 percent of the hours will be performed by disadvantaged workers.	Additionally, the Authority Board of Directors has approved a Community Benefits Policy that sets the target that 30 percent of the hours will be performed by National Targeted Workers and that 10 percent of the hours will be performed by disadvantaged workers.

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7	Connecting California	Describe how the Authority's plans further the goals of SB 535	23	None	<p>Callout Box: Ensuring that Future Cap and Trade Funds Will Benefit Disadvantaged Communities</p> <p>Investment of Cap and Trade revenues will support the objectives of SB535¹—to ensure that disadvantaged communities benefit from the use of Cap and Trade funds—in building the IOS by:</p> <ul style="list-style-type: none"> • Creating new jobs. High-speed rail construction will create thousands of jobs along the IOS corridor including in communities of the Central Valley, which has some of the highest unemployment rates in the country. Using Cap and Trade funds for construction of the IOS will create direct construction-related jobs as well as indirect jobs and related economic development benefits in these communities. The Authority has taken steps to help achieve these outcomes through its Targeted Worker Program and its aggressive Small Business Program. • Improving/mitigating air quality. Air quality is one of the most significant environmental concerns for communities along the IOS corridor and in the Central Valley in particular who live with some of the poorest air quality in the nation. During construction, we are requiring our contractors to use equipment with the cleanest engines available or to retrofit older equipment to achieve air pollutant reductions. We are also working with the San Joaquin Air Pollution Control Board to replace polluting agricultural and hauling equipment with new, clean tractors, pumps, or engines. This equipment will stay in the Valley, continuing to improve local air quality in communities that are suffering from the highest rates of asthma and respiratory disease in the country. • Providing new connections to economic centers. As the system is implemented, it will help connect the Central Valley communities to the economic centers of the Bay Area and Los Angeles and support greater economic development and diversification. We have already identified \$4.5 million (of federal funds) to go to station communities to update land use plans and zoning codes and create new compact, walkable development around the stations. Central Valley communities will benefit from this sustainable community planning work and from the connectivity that will be offered between the Los Angeles Basin once the IOS is completed. • Supporting investments in local/regional transit. Throughout the state, the Authority is working to provide funding to its transit partners so that local transit is improved now for the benefit of communities who rely on transit, and to attract more riders to these systems. This will build up an interconnected, modern, statewide rail system with high-speed rail serving as the backbone. This funding and partnership includes the Statewide Rail Modernization Program which is making commuter and inter-city rail more convenient and practical for communities throughout the state. <p>¹http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_0501-0550/sb_535_bill_20120930_chaptered.pdf</p>
8	Connecting California	Clarify the status of the Central Valley Wye and the flexibility it offers for future system expansion	26	Exhibit 1.2 above shows the schedule for completing the environmental reviews for all project sections.	<p>Exhibit 1.2 above shows the schedule for completing the environmental reviews for all project sections.</p> <p>The Central Valley Wye is a key project element associated with allowing service from the south to travel west into the San Francisco Bay Area and north to Merced and Sacramento. The Authority shifted this project element from the San Jose to Merced project section to the Merced to Fresno project section and is preparing a supplemental environmental document on it which will enable us to accelerate the extension to Merced more quickly if circumstances present themselves.</p>
9	Connecting California	Clarify the Authority's intent to develop the system in a flexible manner and continuously evaluate ways to deliver the system	27	CONTINUE TO COLLABORATE WITH ITS PARTNERS TO DELIVER EARLY BENEFITS WITH THE CONNECTIVITY AND BOOKEND PROJECTS The Authority will also continue to work with our local and regional partners on further development of the connectivity and bookend projects that have already received funding through SB 1029. This will include collaborating in project development, design, environmental reviews and working with stakeholders on how these projects—together with high-speed rail—will enhance connections throughout the state.	<p>CONTINUE TO COLLABORATE WITH ITS PARTNERS TO DELIVER EARLY BENEFITS WITH THE CONNECTIVITY AND BOOKEND PROJECTS</p> <p>The Authority will also continue to work with our local and regional partners on further development of the connectivity and bookend projects that have already received funding through SB 1029. This will include collaborating in project development, design, environmental reviews and working with stakeholders on how these projects—together with high-speed rail—will enhance connections throughout the state.</p> <p>EVALUATE WAYS TO IMPLEMENT THE SYSTEM AS QUICKLY, EFFICIENTLY AND COST-EFFECTIVELY AS POSSIBLE</p> <p>The Authority will continue to be flexible and adaptive as it monitors and evaluates changing circumstances and new opportunities that might allow it to fund and deliver the system, or elements of it, in a better way, at a lower cost or more quickly than currently projected in the 2014 Business Plan. We will do so in collaboration with our partners, stakeholders and communities along the route and in a manner that is consistent with all of the requirements associated with Proposition 1A.</p>

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10	Connecting California	Describe the Authority's work with partner agencies to achieve additional benefits through the use of the right-of-way	27	<p>COLLABORATE WITH COMMUNITIES ON STATION AREA PLANNING</p> <p>The Authority will continue to work with local government entities to develop station area plans around the future high-speed rail stations. These station area plans will address station sites and conceptual design, surrounding infill development, intermodal connectivity, development parcel economic viability analysis and financing/phasing plans.</p>	<p>COLLABORATE WITH COMMUNITIES ON STATION AREA PLANNING</p> <p>The Authority will continue to work with local government entities to develop station area plans around the future high-speed rail stations. These station area plans will address station sites and conceptual design, surrounding infill development, intermodal connectivity, development parcel economic viability analysis and financing/phasing plans.</p> <p>ACHIEVING BROADER PUBLIC BENEFITS</p> <p>As has been noted by legislative committees, the California Public Utilities Commission (PUC), and other state agencies, the development of a statewide dedicated right of way has the potential to provide significant public benefit beyond the transportation provided by the system. For example, the fiber optic lines and communications equipment that will be installed as part of the high-speed rail program potentially can be tapped to provide other benefits, especially in areas that are now not served or are underserved. Those benefits could range from education to agriculture to public safety. The Authority will continue to work with the PUC and the California Office of Technology Services on evaluating the potential for the utilization of the 500-mile contiguous high-speed rail right-of-way from the Bay Area to Southern California for cabling pathways and structures including antennas and other equipment. Other opportunities including those with the private sector may be considered at a later date as the project moves forward.</p>

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11	Business Model	Clarify and further describe the Authority's planned business model	30	Many high-speed rail systems across the globe rely on the private sector to design, construct, operate, and maintain the system. In addition, many other high-speed rail systems also depend on a level of private-sector investment to fund the project. The business model outlined in the 2012 Business Plan follows this approach.	Many high-speed rail systems across the globe rely on the private sector to design, construct, operate, and maintain the system. In addition, many other high-speed rail systems also depend on a level of private-sector investment to fund the project. The business model outlined in the 2012 Business Plan follows this approach. The Authority's delivery strategy is based on leveraging private sector innovation and expertise in the delivery of the IOS and the remainder of the system. The Authority recognizes the need to create significant partnership with the private sector that features balanced risk transfer, early planning input for innovation and cost reduction, and private sector investment. A key goal of the commercial approach will be incentives and strategies designed to support an excellent service while reducing the costs of developing and operating the system.						
		The Authority has already contracted with the private sector on the first design-build contract in the Central Valley and will continue to do so to build out the remaining substructure of the IOS.	30		The Authority has already contracted with the private sector on the first design-build contract in the Central Valley and plans to continue to do so to build out the remaining substructure of the IOS.						
		The Authority will also rely on the private sector for the delivery and maintenance of the remaining elements of the infrastructure (i.e., track, systems, and power). Engaging the private sector early will aid in developing innovative ideas and proposals on how best to deliver these critical elements of the project.	30		The Authority will also rely on the private sector for the delivery and maintenance of the remaining elements of the infrastructure (i.e., track, systems, and power). Engaging the private sector early will aid in developing innovative ideas and proposals on how best to deliver these critical elements of the project. The Authority will seek input from major infrastructure developers and interested financial investors on a strategy to procure the design, build, operation and maintenance of the IOS infrastructure (systems, power, and track) under a combined contract that includes private financing. An infrastructure provider could also potentially maintain the civil works along the IOS and play an integrator role to ensure that the integration of the civil works, infrastructure, rolling stock, and operations is seamless. The Authority will further define the approach, structure and timing for procuring an infrastructure partner for the IOS over the next 12 months including input from the private sector. A potential role of an infrastructure partner is illustrated below: Exhibit 2.1. POTENTIAL DELIVERY MODEL WHERE THE INFRASTRUCTURE PROVIDER IS INTEGRAL TO SYSTEM DELIVERY AND A KEY LONG-TERM PARTNER						
		The Authority is exploring procuring a high-speed rail operator, even before the construction of the IOS is complete, to help launch and then operate the high-speed rail service. The role of the operator pre-launch would include a range of activities designed to generate a strong sense of anticipation and demand for the high-speed rail service before it starts. This initial operating contract would be structured to support the Authority's plan for granting a longer-term operating concession after the IOS is in operation and early ridership is proven.	30		 The Authority views the infrastructure provider as a potential long-term partner and is considering engaging one early in the planning process to incorporate innovation and cost reduction benefits into the delivery of all of the components of the system. The role of the train operator spans two distinct phases of operations – (1) planning and early operations during ramp-up and (2) mature operations after ridership has been proven. The Authority plans to procure a high-speed rail operator, even before the construction of the IOS is complete, to help launch and then operate the high-speed rail service. During the planning and early operations phases, the operator would perform a range of activities designed to generate a strong sense of anticipation and demand for the high-speed rail service before it starts and build ridership during the ramp-up period. Based on feedback from experienced operators, this early phase will likely be a form of management contract. This initial operating contract would be structured to support the Authority's plan for granting a future, longer-term operating concession after the IOS has become a mature operation and early ridership is proven.						
			31	<table border="1"> <caption>EXHIBIT 2.1 HIGH-SPEED RAIL ORGANIZATIONAL MODEL</caption> <tr> <td>GOVERNANCE PUBLIC</td> <td>INFRASTRUCTURE DELIVERY PRIVATE</td> <td>INFRASTRUCTURE OPERATIONS PRIVATE</td> <td>RAIL OPERATIONS PRIVATE</td> </tr> <tr> <td> <ul style="list-style-type: none"> → Ownership → Safety/Standards → Contract Supervision → Agreements → Right-of-Way → Environmental Approvals </td> <td> <ul style="list-style-type: none"> → Signs & Systems Integration → Superstructure Construction → Substructure Construction → Build Stations & Depots </td> <td> <ul style="list-style-type: none"> → Train Dispatch/ Signaling → Infrastructure Maintenance & Renewal → Power Provision → Station O & M </td> <td> <ul style="list-style-type: none"> → Passenger Service → Vehicle Maintenance → Vehicle Procurement </td> </tr> </table>	GOVERNANCE PUBLIC	INFRASTRUCTURE DELIVERY PRIVATE	INFRASTRUCTURE OPERATIONS PRIVATE	RAIL OPERATIONS PRIVATE	<ul style="list-style-type: none"> → Ownership → Safety/Standards → Contract Supervision → Agreements → Right-of-Way → Environmental Approvals 	<ul style="list-style-type: none"> → Signs & Systems Integration → Superstructure Construction → Substructure Construction → Build Stations & Depots 	<ul style="list-style-type: none"> → Train Dispatch/ Signaling → Infrastructure Maintenance & Renewal → Power Provision → Station O & M
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12	Capital and Lifecycle Costs	Describe the Authority's ongoing efforts to reduce capital costs	34	A cost estimate has been developed for each phase of the program. Until final environmental approval of all preferred alignments, stations and maintenance facilities is received, a number of key decisions remain to be made by the Authority. When the Authority finalizes those decisions, the final costs also will be determined.	A cost estimate has been developed for each phase of the program. Until final environmental approval of all preferred alignments, stations and maintenance facilities is received, a number of key decisions remain to be made by the Authority. When the Authority finalizes those decisions, the final costs also will be determined. Further, as we advance the design of the project we will continually strive to ensure that we are delivering both a high quality and a cost-effective system. This will be achieved through conducting value engineering and best value assessments at appropriate milestones. A fundamental objective of these assessments will be to identify ways to further reduce the capital cost of constructing the system.
13	Ridership and Revenue Forecasts	Clarify the assumptions on fares and service patterns used in the Authority's ridership and revenue forecasts and the operator's role in setting the system's ultimate fares during operations	41	None	Callout Box: Assumptions on Fares and Service Types for Ridership and Revenue Forecasting To update the ridership and revenue forecasts for the 2014 Business Plan, we have applied similar assumptions for trip times and fares as those used in the 2012 Business Plan. More specifically, we modeled select service patterns and average fares in order to project potential outcomes and evaluate the system's financial feasibility. In the future, actual service offerings and fare structures will be developed by a private operator based on overall guidance from the Authority. International high-speed rail systems typically offer a range of services, such as express, semi-express, local/all-stop trains, and use yield management techniques to maximize ridership and revenues. These same techniques are used by U.S. airlines, which might offer different services such as the choice of a nonstop or connecting flight and a variety of fares where an economy seat purchased three months ahead of time will have a significantly lower fare than a first class ticket for the same trip purchased at the last minute. The average fares and trip times used in the 2014 forecasts are designed to be achievable, reasonable, and conservative. Ultimately, final decisions on what types of service to run and how much to charge customers will be made in the future when the Authority and operator approach the start of operations on the system.
14	Systems Assurance / Risk Management	Describe the Authority's planned approach to mitigating risk associated with grade crossings on the Caltrain corridor	70-71	In addition, the terms of these agreements and constraints imposed by the railroad's normal operations may negatively impact (implicit) productivity assumptions made during the development of the program's schedule and cost estimate, as well as the eventual contractor's possible means and methods.	In addition, the terms of these agreements and constraints imposed by the railroad's normal operations may negatively impact (implicit) productivity assumptions made during the development of the program's schedule and cost estimate, as well as the eventual contractor's possible means and methods. At the same time, these railroad agreements would have to account for the risk of possible grade crossings in the Caltrain corridor.
				Additionally, the Authority has made substantial progress in negotiating a master engineering, construction and maintenance agreement with the UPRR. Finally, the Authority has begun negotiations with UPRR on a purchase and sale agreement, which will include all the parcels required from the UPRR for CP 1. Additionally, the Authority has made substantial progress in negotiating a master engineering, construction and maintenance agreement with the UPRR. Finally, the Authority has begun negotiations with UPRR on a purchase and sale agreement, which will include all the parcels required from the UPRR for CP 1.	Additionally, the Authority has made substantial progress in negotiating a master engineering, construction and maintenance agreement with the UPRR. Finally, the Authority has begun negotiations with UPRR on a purchase and sale agreement, which will include all the parcels required from the UPRR for CP 1. Risks in the Caltrain corridor areas would be mitigated in one of four ways, in accordance with the Federal Railroad Administration's "High-Speed Passenger Rail Safety Strategy", specifically: 1. Eliminate all redundant or unnecessary crossings together with any crossings that cannot be made safe due to crossing geometry or proximity of complex highway intersections. 2. Install the most sophisticated traffic control/warning devices compatible with the location (e.g., median barriers, special signage (possible active advanced warning), four-quadrant gates) where train-operating speeds are between 80 and 110 mph. 3. Protect rail movement with full width barriers capable of absorbing the impact of highway vehicles where train-operating speeds are between 111 and 125 mph. 4. Eliminate or grade-separate all crossings where trains travel at speeds above 125 mph.